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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/747,977

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Kevin W. Rudd

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9034

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7590

10/02/2006

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EXAMINER

ELMORE, REBA I

ART UNIT

PAPER NUMBER

2189

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/747,977

Applicant(s)

RUDD ET AL.

Examiner

Reba I. Elmore

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

1. Claims 1-31 are presented for examination.

### *SPECIFICATION*

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *35 USC § 101*

3. The rejection of claims 29-31 is *withdrawn* due to the amendment.

### *35 USC § 112, 1<sup>st</sup> Paragraph*

4. The rejection of claims 1-31 as failing to comply with the enablement requirement under 35 USC § 112, 1<sup>st</sup> paragraph is *maintained* and repeated below.

5. The following is a quotation of the first paragraph of 35 USC § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-31 are rejected under 35 USC § 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

7. The terminology 'volatile' and 'non-volatile' has been used extensively in the specification and claims without clearly defining the meaning of these terms within the scope of

the present invention. Additionally, these terms are already associated with memory devices within the memory arts and cannot be used to now have a different meaning.

***35 USC § 112, 2<sup>nd</sup> Paragraph***

8. The rejection of claims 1-31 under 35 USC § 112, 2<sup>nd</sup> paragraph, as being indefinite is ***maintained*** and repeated below.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. The claim language uses the terms 'volatile' and 'non-volatile' in conjunction with cache lines and cache line segments without adequately providing meanings within the specification for this use of the terms. These terms are commonly associated with memory devices and not with data within a memory device or cache. This does not provide a clear, distinct description of the present invention within either the specification or in the claims themselves. The metes and bounds of the claim language cannot be determined.

12. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v.*

*HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The terms

“volatile” and “non-volatile” in claims 1-31 appear to be used by the claims to mean status conditions associated with data in a cache line or segments of a cache line, while the accepted meanings of these terms are descriptive of memory hardware devices and the loss of data when the memory device loses power. The terms are indefinite because the specification does not clearly redefine the terms.

13. Due to the stated ambiguities of the given language, it is not possible from either the specification or the claims to determine the scope of this language or to determine the metes and bounds of the claims.

14. Due to the ambiguities and confusion in claims 1-31 as cited above, no art has been applied thereto, see *In re Steele*, 49 CCPA 1295, 305 F. 2d 859, 134 USPQ 292 (1962) and *In re Wilson*, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). The examiner will not speculate as to the intended meaning.

### ***RESPONSE TO APPLICANT'S REMARKS***

15. Applicant's arguments filed August 16, 2006 have been fully considered but they are not persuasive.

16. The Applicant is essentially presenting a defense of the use of the terms ‘volatile’ and ‘nonvolatile’ as being valid because these terms are being used based upon a normal (non-memory art specific definition) dictionary meaning but also that these terms are not ambiguous because they are well known in the memory art. The definitions of these terms in the memory art are very specific and while the technical definitions used by one of ordinary skill in the memory arts is not basically contrary to the standard dictionary definitions, the technical definitions go beyond the dictionary definitions in such a way that the Applicant’s use of these

terms is confusing and renders the claims indefinite. Such well known, established technical usage of terms cannot be redefined by the Applicant, including standard dictionary meanings. The terms 'volatile' and 'non-volatile' are used to describe memory storage devices. These terms have a long established definition which is tied to the actual hardware used for memory. Using these terms in the context of describing 'states' of cache lines is outside of the given practices.

17. The dictionary definitions provided by the Applicant to support the use of the terms 'volatile' and 'non-volatile' in the present specification further confuse the use of these terms instead of clarifying their usage. The meanings found in investment dictionaries and medical dictionaries are not pertinent to usage of these terms in relationship to computer memory.

Computer memory is the field of use for the present invention and there is no application in the fields of chemistry, finance or medicine. The one definition provided in the computer arts is for programming variables. The claims as well as the specification is directed toward cache lines and replacement protocol. This is not the same usage as programming variables. Nowhere in the Applicant's specification is there a discussion of either programming variables, static variables, volatile variables or non-volatile variables.

### ***FINALITY OF THE OFFICE ACTION***

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***CONCLUSION***

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reba I. Elmore, whose telephone number is (571) 272-4192. The examiner can normally be reached on Monday and Wednesday from 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor for AU 2189, Reginald G. Bragdon, can be reached for general questions concerning this application at (571) 272-4204. Additionally, the official fax phone number for the art unit is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center central telephone number is (571) 272-2100.



Reba I. Elmore  
Primary Patent Examiner  
Art Unit 2189

Saturday, September 16, 2006

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